

FULBRIGHT & JAWORSKI L.L.P.

A REGISTERED LIMITED LIABILITY PARTNERSHIP 600 CONGRESS AVENUE, SUITE 2400 AUSTIN, TEXAS 78701-3271 WWW.FULBRIGHT.COM

RHANSON@FULBRIGHT.COM DIRECT DIAL: (512) 536-3085 TELEPHONE:

(512) 474-5201

FACSIMILE:

(512) 536-4598

November 12, 2003

CERTIFICATE OF MAILING 37 C.F.R 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: MS DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

November 12, 2003

Date

Robert E. Hansoh

MS DD

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

RE:

U.S. Patent Application No. 10/659,755 entitled "METHODS AND COMPOSITIONS FOR PRODUCTION OF FLAVONOID AND ISOFLAVONOID NUTRACEUTICALS" –

Richard A. Dixon et al.

Our reference: NBLE:007US

Sir:

Enclosed for filing in the above-referenced patent application is an Information Disclosure Statement, Form PTO-1449, and references B1 and C1-C22.

No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the enclosed materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/NBLE:007US.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,

Robert É. Hanson Reg. No. 42,628

REH/kmv

Encl.: as noted

25353738.1





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Richard A. Dixon *et al.*

Serial No.: 10/659,755

Filed: September 10, 2003

For: METHODS AND COMPOSITIONS FOR PRODUCTION OF FLAVONOID AND ISOFLAVONOID NUTRACEUTICALS

Group Art Unit: Unknown

Examiner: Unknown

Atty. Dkt. No.: NBLE:007US

CERTIFICATE OF MAILING 37 C.F.R 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to:, MS DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

Robert E. Hanson

November 12, 2003

Date

INFORMATION DISCLOSURE STATEMENT

MS DD

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be

an admission that the information cited is, or is considered to be, material to patentability as

defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first

Official Action reflecting an examination on the merits, and hence is believed to be timely filed

in accordance with 37 C.F.R § 1.97(b). No fees are believed to be due in connection with the

filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R.

§§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the

Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit

Account No.: 50-1212/NBLE:007US.

Applicants respectfully request that the listed documents be made of record in the present

case.

Respectfully submitted,

Robert E. Hanson

Reg. No. 42,628

Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P. 600 Congress Avenue, Suite 2400 Austin, Texas 78701 (512) 474-5201

Date:

November 12, 2003

Form PTO-1449 (modified)	Atty. Docket No. NBLE:007US	Serial No. 10/659,755	_	
List of Patents and Publications for Supering 14 2003	Applicant's Applicant Richard A. Dixon et	al.		
(Use several sheets if neces		Group: Unknown		
RADE MINE U.S. Patent Documents	Foreign Patent Documents	Other Art		
See Page 1	See Page 1	See Page 1		

			U.S. Pa	itent Docum	ents		
Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
			oreign l	Patent Docu	ments		
Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1	WO 00/53771	03/08/00	PCT			

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
C1	C1	Akashi et al., "Cloning and functional expression of a cytochrome P450 cDNA encoding 2-hydroxyisoflavanone synthase involved in biosythesis of the isoflavanoid skeleton in licorice," <i>Plan Physiol.</i> , 121:821-828, 1999.
	C2	Dixon et al., "Comparative bichemistry of chalcone isomerases," Phytochemistry, 27(9):2801-2808, 1988.
	C3	Dixon, In: Comprehensive Natural Products Chemistry, Vol. 1, Sankawa (ed.), Elsevier, 773-823, 1999.
	C4	Dixon and Ferriera, "Molecules of interest: Genistein," Phytochemistry, 60:205-211, 2002.
	C5	Dong <i>et al.</i> , "Functional conservation of plant secondary metabolic enzymes revealed by complementation of arabidopsis flavanoid mutants with maize genes," <i>Plant Physiology</i> , 127:46-57, 2001.
	C6	GenBank Accession Number AC092697.
	C7	GenBank Accession Number AF022462.
	C8	GenBank Accession Number AJ278457
	C9	GenBank Accession Number AJ295587.1
	C10	GenBank Accession Number M91079

25343169.1

EXAMINER:	DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Forr	n PTO-1449 (modified)
List	f Patents and Publicat
	NFORMATION DISCLO

blications for Applicant's

SCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date: September 10, 2003

Richard A. Dixon et al.

Atty. Docket No.

NBLE:007US

Applicant

Group: Unknown

Serial No.

10/659,755

U.S. Patent Documents See Page 1

Foreign Patent Documents See Page 1

Other Art See Page 1

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C11	Hakamatsuka et al., "Purification of 2-hydroxyisoflavanone dehydratase from the cell cultures of pueraria lobata," <i>Phytochemistry</i> , 49(2):497-505, 1998.
	C12	Jung et al., "Identification and expression of isoflavone synthase, the key enzyme for biosynthesis of isoflavones in legumes," <i>Nature BioTech.</i> , 18:208-212, 2000.
	C13	Junghans <i>et al.</i> , "Stress responses in alfalfa (medicago sativa L.). 15. Characterization and expression patterns of members of a subset of the chalcone synthase multigene family," <i>Plant Mol. Biol.</i> , 22:239-253, 1993.
	C14	McKhann and Hirsch, "Isolation of chalcone synthase and chalcone isomerase cDNAs from alfalfa (medicago sativa L.): highest transcript levels occur in young roods and root tips," <i>Plant Mol. Biol.</i> , 24(5):767-777, 1994.
	C15	Muir et al., "Overexpression of petunia chalone isomerase in tomato results in fruit containing increased levels of flavonols," <i>Nature Biotech.</i> , 19:470-474, 2001.
	C16	Schröder, "A family of plant-specific polyketide synthases: facts and predictions," <i>Trends in Plant Sci.</i> , 2(10):373-378, 1997.
	C17	Steele et al., "Molecular characterization of the enzyme catalyzing the aryl migration reaction of isoflavaniod biosynthesis in soybean," Arch. Biochem. Biophys., 367(1):146-150, 1999.
	C18	Stochmal et al., "Alfalfa (medicago sativa L.) flavanoids. 2. Tricin and chrysoeriol clycosides from aerial parts," J. Agric. Food Chem., 49:5310-5314, 2001.
	C19	Stochmal et al., "Alfalfa (medicago sativa L.) flavaniods. 1. Apigenin and luteolin glycosides from aerial parts," J. Agric. Food Chem., 49:753-758, 2001.
	C20	Winkel-Shirley, "Evidence for enzyme complexes in the phenylpropanoid and flavanoid pathways," <i>Physiologia Plantarium</i> , 107:142-149, 1999.
	C21	Ye et al., "Engineering the provitamin A (β -carotene) biosynthetic pathway into (carotenoid-free) rice endosperm," Science, 287:303-305, 2000.
	C22	Yu et al., "Production of the isoflavones genistein and daidzein in non-legume dicot and monocot tissues," Plant Physiology, 124:781-794, 2000.

25343169.1

EXAMINER:

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.